

What is claimed is:

1. A radio communication system having a radio network controller, base stations and mobile stations, to perform multicast communication, wherein

5 the radio network controller comprises a control signal transmitter configured to divide a multicast group into subgroups, to divide a control signal for the multicast group into control signals for the subgroups, and to transmit the control signals for the subgroups to the base station; and

10 the mobile station comprises:

 a response signal creator configured to create a response signal to the control signal for at least one subgroup;

 a transmission timing detector configured to detect a transmission timing of the response signal from the control signal for at least one subgroup; and

 a response signal transmitter configured to transmit the response signal to the base station with the transmission timing.

20 2. A mobile station supporting multicast communication, the mobile station comprising:

 a response signal creator configured to create a response signal to a control signal for at least one subgroup into which a control signal for multicast group is divided;

25 a transmission timing detector configured to detect a transmission timing of the response signal from the control signal for at least one subgroup; and

 a response signal transmitter configured to transmit the response signal to a base station with the transmission timing.

3. A radio network controller supporting multicast communication, the radio network controller comprising:

5 a control signal transmitter configured to divide a multicast group into subgroups, to divide a control signal for the multicast group into control signals for the subgroups, and to transmit the control signals for the subgroups to a base station.

10 4. The radio network controller according to claim 3, wherein

15 the radio network controller performs a predetermined processing on a predetermined number of response signals, the predetermined number of response signals responding to the control signal for the multicast group and being transmitted from mobile stations joining in the multicast group; and

20 the radio network controller performs processing on only the predetermined number of response signals, and any following response signal is unprocessed by the radio network controller, the following response signals being transmitted from the mobile stations joining in the multicast group.

5. The radio network controller according to claim 4, wherein the predetermined number is one.